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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,369

01/30/2006

Oleg Naigertsik

1268-254

2102

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06/17/2011

LOWE HAUPTMAN HAM & BERNER, LLP

1700 DIAGONAL ROAD

SUITE 300

ALEXANDRIA, VA 22314

EXAMINER

TRAN, THAO T

ART UNIT

PAPER NUMBER

1787

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/566,369	NAIGERTSIK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thao Tran	1787	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 9, 10, 13, 15, 17, 19, 22-24 and 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

Continuation of Disposition of Claims: Claims pending in the application are 1,9,10,13,15,17,19,22-24,29,33,40-43,45,47,48,51,52,56,60,62,73,74,82,83,86,88,90,92 and 94-97.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 33,40-43,45,47,48,51,52,56,60-62,73,74,82,83,86,90,92 and 94-97.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/26/2011 has been entered.
2. Claims 1, 9-10, 13, 15, 17, 19, 22-24, 29, 33, 40-43, 45, 47-48, 51-52, 56, 60, 62, 73-74, 82-83, 86, 88, 90, 92, and 94-97 are currently pending in this application.
3. This application contains claims 33, 40-43, 45, 47, 48, 51-52, 56, 60-62, 73-74, 82-83, 86, 90, 92, 94-97 drawn to an invention nonelected with traverse in the reply filed on 1/25/2010. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
4. In view of the Amendment, a 112 rejection is set forth below. The previous rejection of the claims is maintained as follows.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
6. Claims 1, 9-10, 13, 15, 17, 19, 22-24, and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claims 1 and 29 are indefinite due to the use of “wherein the ratio of said precursors to said core material”. It is unclear to the examiner what ratio Applicants are trying to claim. If Applicants mean to indicate this as the weight ratio, please state so.

Remark: In light of the specification, paragraph [0022], the examiner is interpreting this as the weight ratio.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 9-10, 13, 15, 17, 19, 22-24, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapidot et al. (US 2002/0064541).

Lapidot discloses a composition, comprising microcapsules having a core-shell structure. The core of each microcapsule includes at least one active ingredient and is encapsulated within a microcapsular shell; whereas the shell is comprised of at least one inorganic polymer obtained by a sol-gel (in-situ) process (see abstract).

The active ingredients include antibiotics, anti-fungal agents, anti-inflammatory agents, perfumes, colors, dyes, enzymes, vitamins, or mixture thereof (see claims 1-89). Example 8 shows the active ingredient to be octylmethoxy cinnamate, a sunscreen compound [0264]. Example 7 shows the active ingredient to be azo dye Congo Red, which is a fluorescent dye [0253].

The inorganic polymer is prepared from a sol-gel precursor, such as a metal alkoxide monomer [0131]. Example 1 shows the monomer used to be tetraethoxy silane [0243].

The composition further comprises a carrier [0032].

With respect to the amount of the active ingredient material in the core and the pH used, Lapidot teaches about 1% to about 95% [0085] and a pH of 7.4 (Example 8). Thus, by teaching about 95%, Lapidot directly the presently claimed range. And a pH of 7.4 is approximate the presently claimed range. Thus, the presently claimed invention would be considered obvious over the Lapidot reference, absence of evidence to the contrary.

With respect to the weight ratio of the shell to the core, Lapidot further teaches the concentration of the surfactant in the dispersion is about 0.1% to about 20% by weight (see 0092). Thus, the core would constitute more than about 1% to about 95% of the microcapsules, and the weight ratio of the shell to the core would overlap the presently claimed range of 5/95 to 25/75.

### ***Response to Arguments***

9. Applicant's arguments filed 10/18/2010 have been fully considered but they are not persuasive.

Throughout the Remark, Applicants argue that Lapidot does not teach the presently claimed amount of the core material or the pH. However, as mentioned above, Lapidot discloses a core material amount of about 95%, thus obvious over the presently claimed amount of 96%. Lapidot also teaches a pH of 7.4, approximate the presently claimed pH of 7.0. Thus, the presently claimed invention would be considered obvious over the reference of Lapidot.

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With respect to the weight ratio of the shell to the core of the microcapsule, Applicants argue that in Lapidot, the weight ratio is about 50/50. However, the core material of Lapidot constitutes different ingredients, among which an active ingredient is present in an amount of at least about 1% to about 95% of the dispersion. Other ingredients in the core material of Lapidot further comprise about 0.1% to about 20% by weight of a surfactant in the dispersion (see 0092). Lapidot also discloses the amount of the precursor to be about 0.001% to about 99% by weight of the dispersion (see 0229). Hence, the weight ratio of the shell to the core material in Lapidot would overlap the presently claimed range of 5/95 to 25/75.

#### ***Contact Information***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao Tran whose telephone number is (571)272-1080. The examiner can normally be reached on Monday-Friday, from 9:00 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thao Tran/  
Primary Examiner, Art Unit 1787

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